

MINI SPEED DOME CAMERA

12X Mini Speed Dome Camera Instruction Manual

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WARNINGS & CAUTION

If you fail to read this information and handle the product incorrectly, death or serious injury may occur.

The unit should be installed by the trained personnel

Switch off immediately if the product emits smoke or abnormal heat.

Never install the product in area exposed to water, oil or gas.

Never install the product on a ceiling that cannot hold its weight.

Never touch the power cord with wet hands.

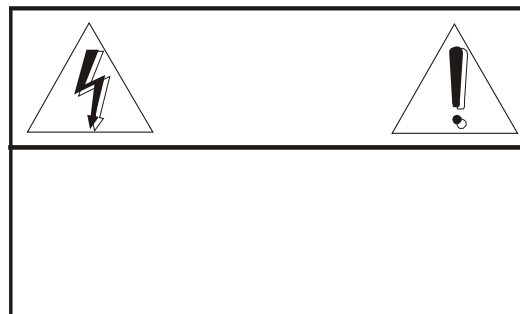
Clean only with dry cloth.

Never install the product in extreme high or low temperature.

Ensure that the product is not subjected to strong impacts and vibration

Never expose the camera to direct sunlight

Never touch the front glass of the product.



This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Warning

Never manually move the pan/tilt assembly. Serious and permanent damage will occur

What's in the Box ?

1. Camera
2. Screws (Ø4x16 screw 5EA)
3. Terminal block 5pin 2EA (DC Type)
4. Terminal block 5pin 1EA , 6pin 1EA (AC 24V Type)
5. Manual
6. Screw Cap (1 EA)

GENERAL FEATURES

12X Zoom Mini Speed Dome

12X Optical Zoom with 16X digital zoom

±0.05° dome system accuracy with full micro step

With 0.05° positional accuracy, the camera provides excellent sensitive and delicate control. This is achieved by full micro step motors and twin gear system

360° Endless Rotation

12X mini speed dome is capable of endless rotation of 360 degrees

Compensation function: preset position

The function provides absolute preset position even in difficult applications where vibration and strong winds may otherwise affect dome performance.

Over 200°/Sec Preset Speed

The 360° full pan function moves through a maximum of 200°/sec., enabling you to quickly pinpoint the spot you want to watch. Tilt speed is also driven at 200°/sec on preset seek.

Polarity Protection of Power (DC12V)

This protection function prevents damage to the domes power board if the dc supply is connected with incorrect polarity.

Filter changeable True Day/Night

Top quality images are assured under day and night conditions due to the true day / night camera with IR cut filter. Low light sensitivity is further increased by the cameras digital slow shutter.

Indoor / Outdoor applications

The domes small size and construction to IP 66 ingress protection rating make it ideal for internal or external applications.

Quick Operation Keys

This camera provides quick function keys to allow control by most keyboards and DVRs that have Pelco protocol support.

Various Surveillance Functions

Auto Scan repeats pan and tilt between two preset positions with different speed and dwell time.

8 Group Tour up to 8 Programmable Group tours are available with each group is consisting of up to 60 preset steps with different speed and dwell times along with 16 character titling.

165 Preset positions up to 165 programmable preset positions are available with 16 character title.

8 Patterns up to 8 programmable user-defined patterns are available with 16 character title. Each can be up to 50 seconds long, giving a total of 400 seconds.

8 Sectors up to 8 programmable user-defined sectors are available with 16 character titling.

4 Privacy Masking Zones up to 4 programmable user-defined privacy masking zones are available.

4 Alarm input up to 4 alarms can be wired to the dome head and can activate presets, tours, or patterns.

150°/S – Manual speed

The dome provides up to 150°/sec of manual speed and is also adjustable from 100°/sec to 150°/sec in 10°/sec increments.

1/4" Sony Super HAD CCD

Equipped with Sony Super HAD CCD technology, the camera provides excellent sensitivity and low smear levels.

Intelligent Pan/Tilt Controlling Intelligent Pan/Tilt function is continually increases or decreases pan and tilt speeds in proportion to zoom.

Dome Housing

The elegantly designed aluminum body and Poly Carbonate dome cover provide a very solid product for a wide range of applications.

Password Protection

It is possible to password protect all dome settings to prevent unauthorized changes.

NAMES OF EACH PART

FIG. 1

1. Surface Mount Adaptor
2. Cap Screw (PT3/4, 1EA)
3. Dip Switch
4. Terminal Block
5. Main body

Website: www.Veilux.net Phone # 1-800-510-6528

INSTALLATION

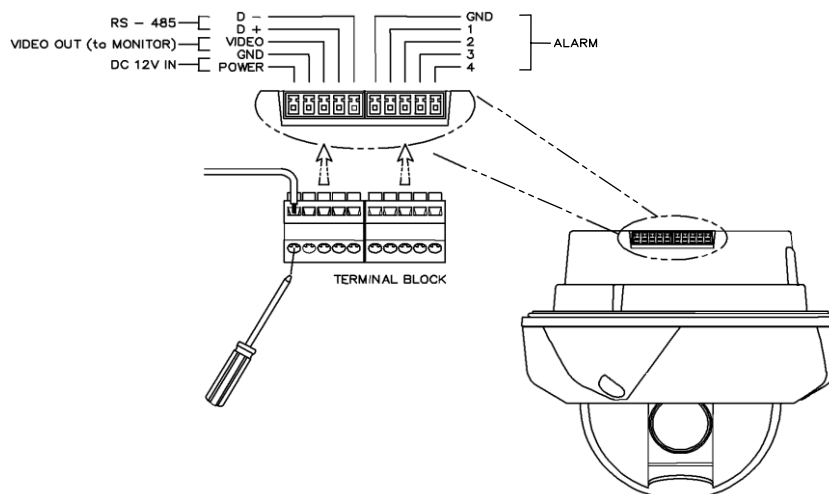
A. CONNECTIONS

A-1

1. Loose the screws on the domes cover and remove it from the base.
(Screws won't be removed)
2. Loosen the screws which connect mount cover and Main base and separate dome cover from the main base. (These are captive screws that do not remove)
3. Connect power to Power and GND.
4. Connect video to video and GND.
5. Connect communication cable to RS-485 connectors.
6. Connect alarm common cables to GND. Connect the alarm input cables to their relevant terminal (1-4) Alarm polarity can be programmed as N/O or N/C

- **Do not over tighten screws. This can cause damage.**

■ 12VDC type



■ 24VAC type

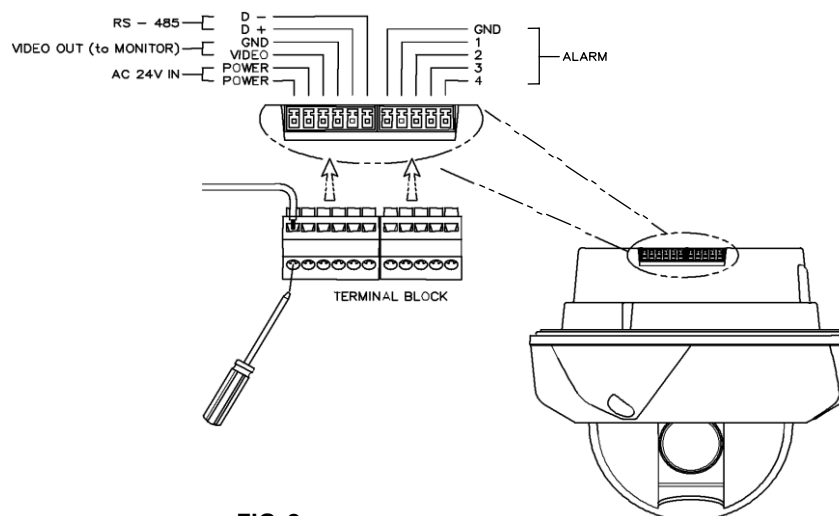


FIG. 2

INSTALLATION

B. CEILING MOUNT TYPE

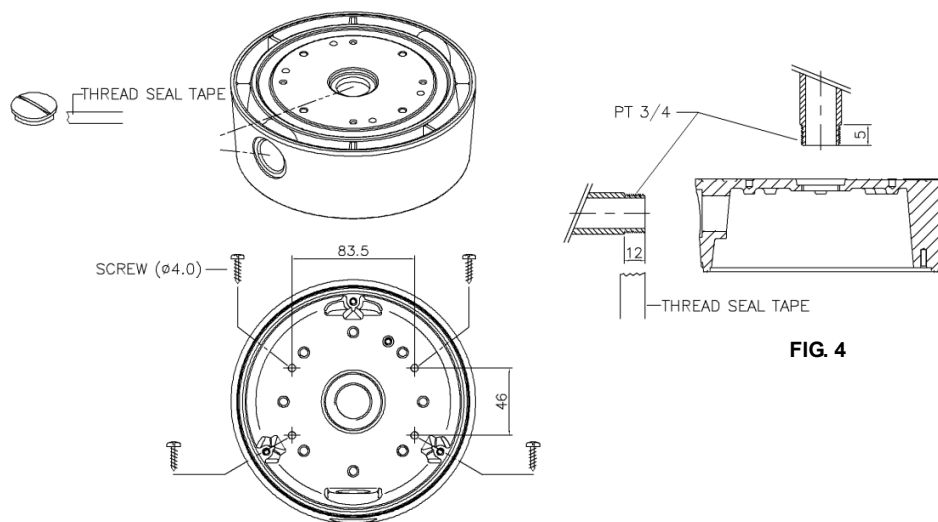


FIG. 3

FIG. 4

1. Fix the surface mount adaptor with 4pcs of screws on the place where you want to install. (FIG. 3)
Caution) Be sure to use seal tape for 3/4" cap screw to prevent a water leakage.
2. When you use pipe, please note the standard size of pipe. (FIG.4) **Caution)** Be sure to use seal tape for pipe screw to prevent a water leakage.
3. Re-assemble the dome.

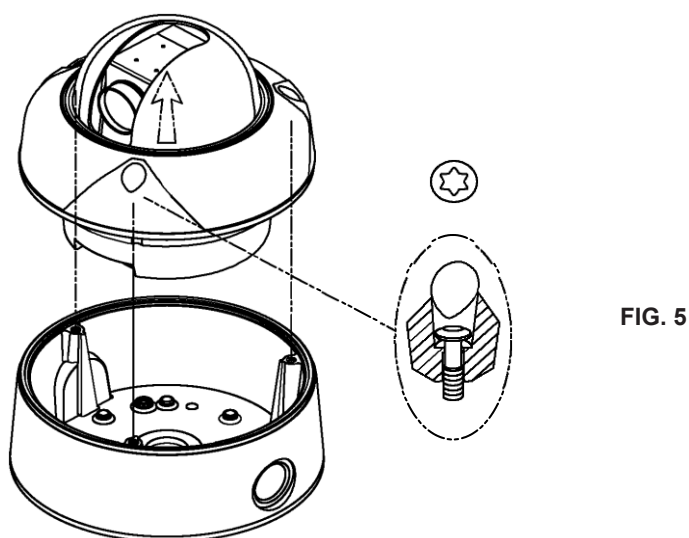


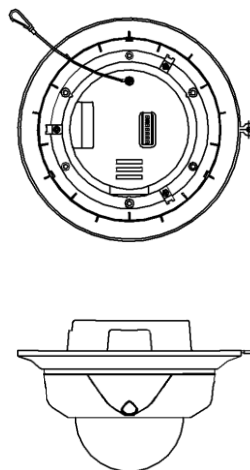
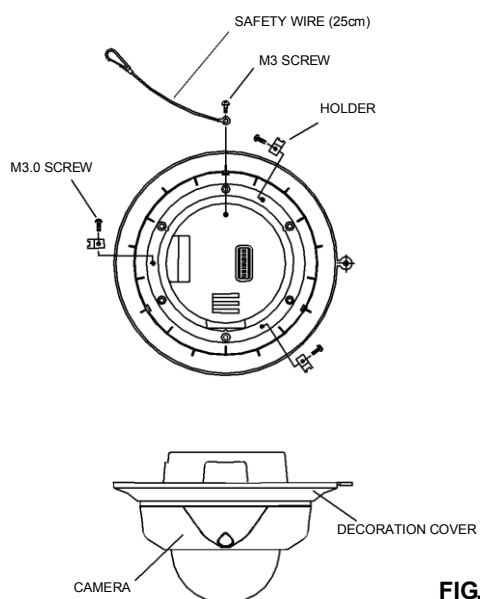
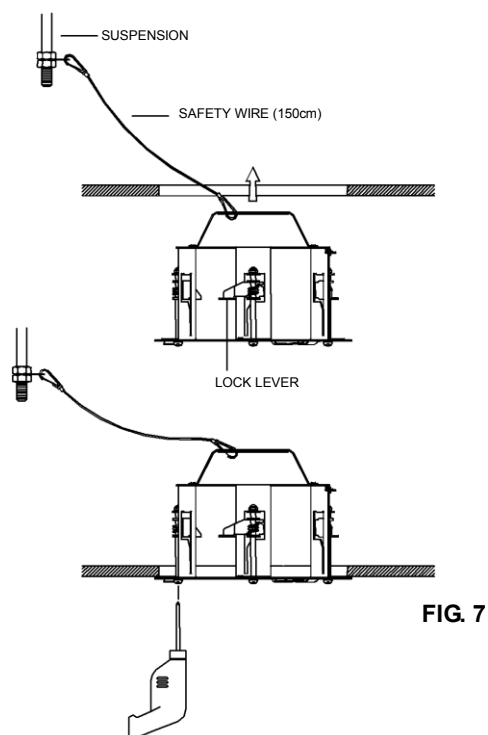
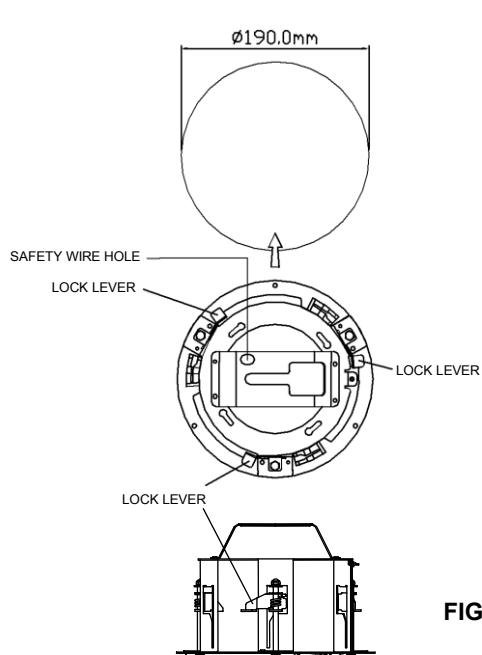
FIG. 5

INSTALLATION

C. EMBEDDED MOUNT TYPE

Contents

- Embedded mount bracket 1ea
- Holder 3ea
- Decoration cover 1ea
- Safety wire 2ea
- Screw – M3.0 x 6 5ea
- Screw - Ø4.0 x 16 1ea



INSTALLATION

1. Make a hole, 190mm, on the ceiling. (FIG. 6)
2. Hook the safety wire over suspension and safety wire hold of embedded mount bracket.
Fold the lock levers and insert the bracket into the hole.
You can fix the lock lever by driving screws. (FIG. 7)
3. Fix the decoration cover on the rear of camera by holder screws (M3.0) (FIG. 8)
4. Drive the screw (M4.0) to fix safety wire of camera and hook the safety wire over safety wire hold of embedded mount bracket. (FIG. 9)
5. Install the camera by inserting cover lock and twisting it clockwise. (FIG. 10)
6. Fix the decoration cover by screw (Ø4.0x16) (FIG. 10)

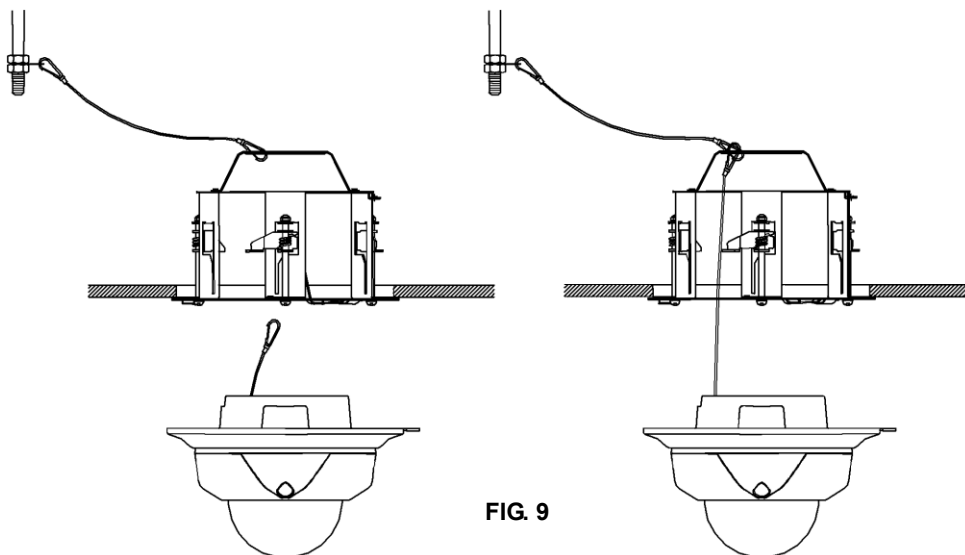


FIG. 9

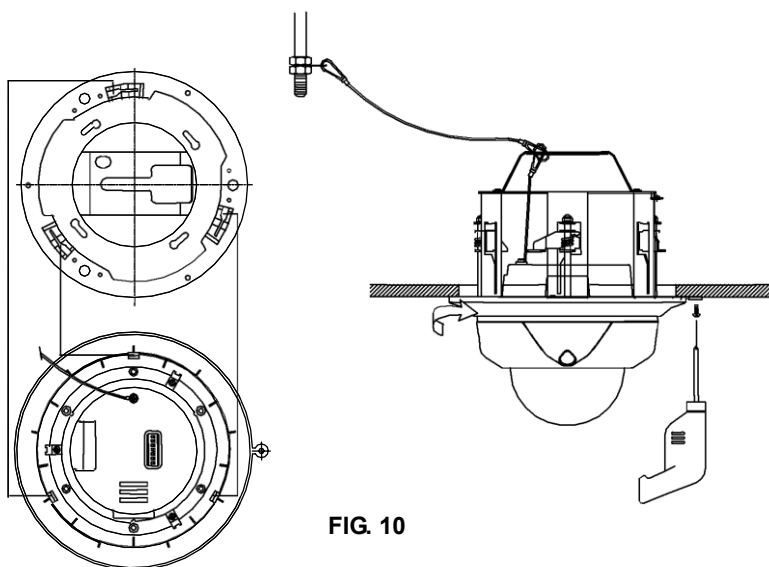


FIG. 10

INSTALLATION

D. PIPE MOUNT TYPE

Contents

- | | |
|--------------------------|-------------------------------|
| ■ Pipe mount bracket 1ea | ■ Rubber 1ea |
| ■ Screw – M4.0 x 8 4ea | ■ Set anchor bolt (W5/16) 4ea |

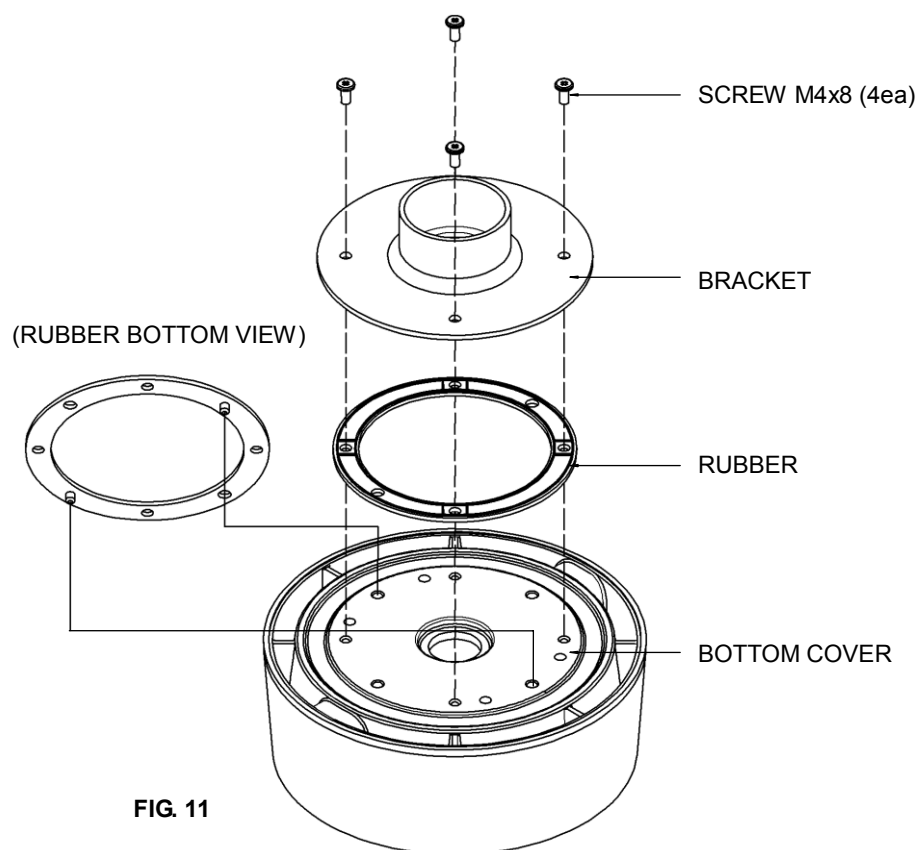


FIG. 11

1. As above FIG.11, assemble rubber and bracket on the bottom of camera.
2. After finishing assembly, it will be shown as below. (FIG.12)

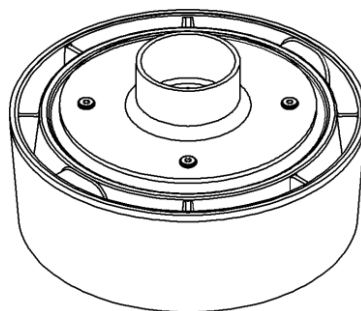


FIG. 12

INSTALLATION

3. If you want to install the speed dome on the concrete wall, you need to make 12.5mm diameter 4 holes by drill like FIG. 13 (Depth 37mm)
4. Install SET ANCHOR BOLT on the holes.
5. As shown on FIG.15, after assembling mini PTZ and bottom cover assembly, drive the pipe mount bracket and fix. (FIG.15) **Caution)** Be sure to use seal tape for pipe screw to prevent a water leakage.

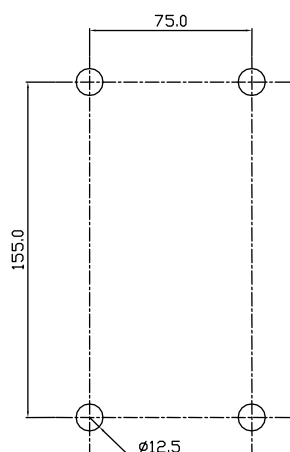
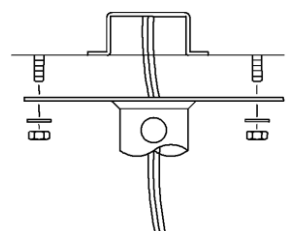
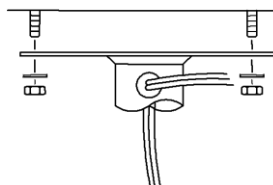


FIG. 13



<the cable into the ceiling>



<the cable out of the ceiling>

FIG. 14

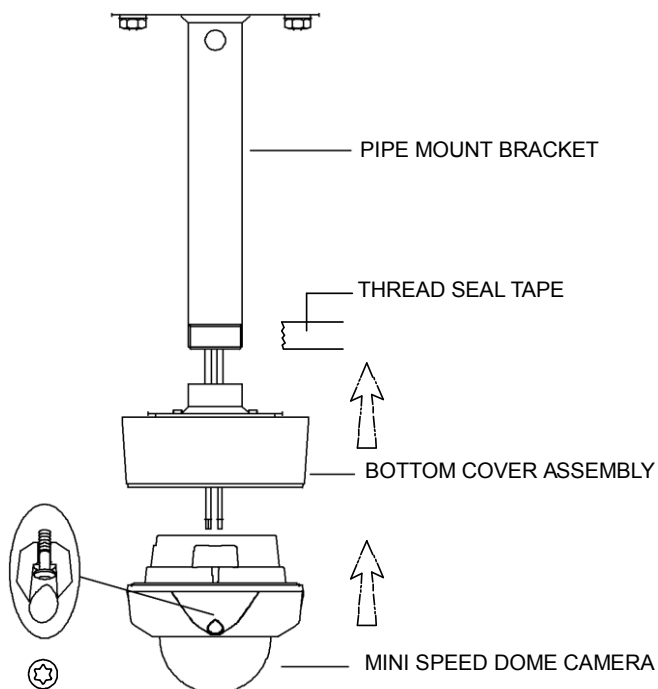
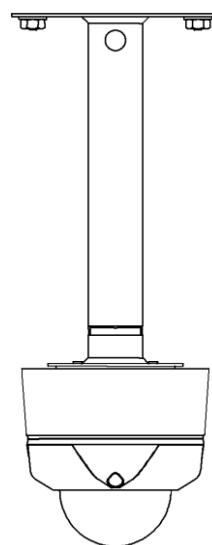


FIG. 15

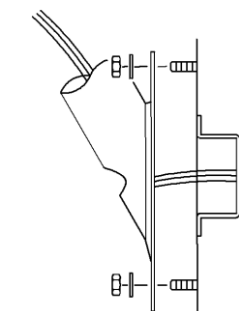
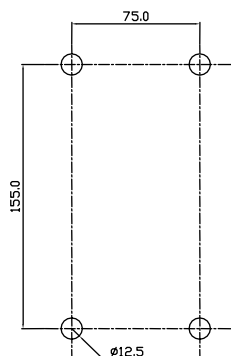


INSTALLATION

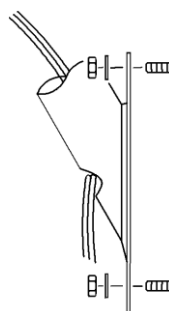
E. GOOSENECK MOUNT TYPE

- Gooseneck mount bracket 1ea
- Set anchor bolt (W5/16) 4ea

- Rubber 1ea
- Screw M4 x 8 4ea



<the cable into the ceiling>



the cable out of the ceiling>

FIG. 16

1. If you want to install the speed dome on the concrete wall, you need to make 12.5mm diameter 4 holes by drill like FIG.16 (Depth 37mm)
2. Install SET ANCHOR BOLT on the holes.
3. As shown on FIG.17, after assembling mini PTZ and bottom cover assembly, drive the gooseneck mount bracket and fix. (FIG.17) **Caution**) Be sure to use seal tape for pipe screw to prevent a water leakage.

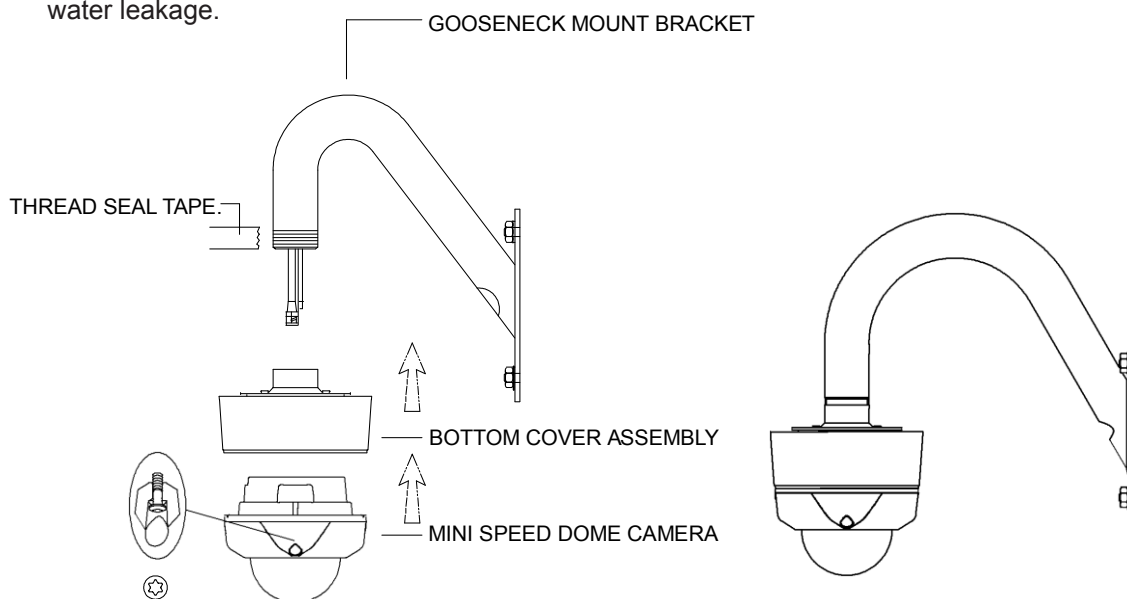


FIG. 17

INSTALLATION

F. WALL MOUNT TYPE

Contents

- Wall mount bracket 1ea
- Set Anchor Bolt (W5/16) 4ea
- Hexagon Socket head cap screw M4.0 x16 4ea
- Hexagon wrench 3mm L Type 1ea

1. If you want to install the speed dome on the concrete wall, you need to make 12.5mm diameter 4 holes by drill like FIG. 1 (Depth 37mm) (FIG.18)
2. Install SET ANCHOR BOLT on the holes.
3. To install Wall Mount Bracket

Tip> Select a ceiling board strong enough to hold 4 times the total weight of the camera (Weight combined camera: approx.5kg)

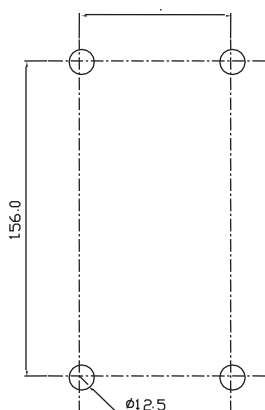


FIG. 18

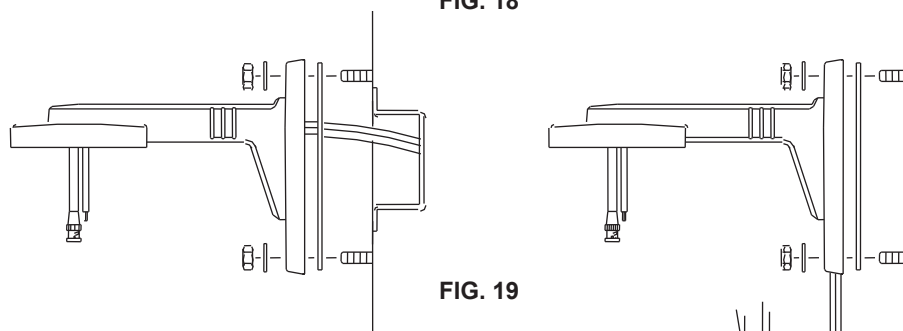


FIG. 19

<the cable into the ceiling>

<the cable out of the ceiling>

INSTALLATION

4. Assemble a wall mount bracket and camera by Hexagon socket head cap screws (M4.0X16) (FIG. 20)

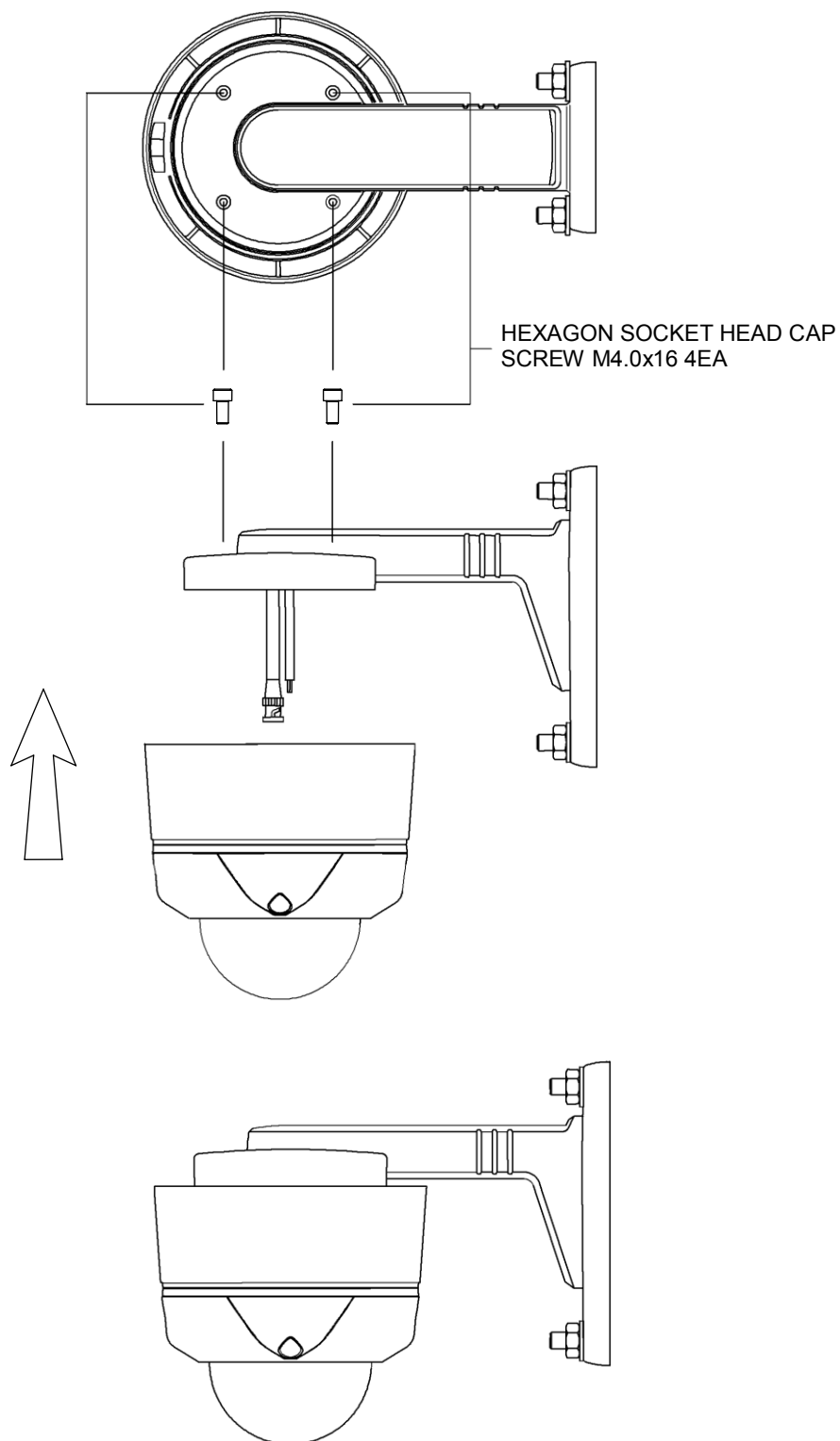


FIG. 20

INSTALLATION

G. CORNER MOUNT TYPE

Contents

■ Corner mount adaptor 1ea ■ Set Anchor Bolt (W5/16) 4ea ■ M10 Bolt & Nut 4ea

1. First mark the positions of holes placing the corner mount bracket. (FIG. 21)
2. Make 12.5mm diameter 4 holes by drill. (Depth 37mm)
3. Install SET ANCHOR BOLT on the holes.
4. Fix the wanted bracket on the corner mount bracket with 4 ea of M10 BOLT before you install the corner mount bracket. (FIG. 22)
5. Screw the set anchor bolt of the bracket by nut on the wall. (FIG. 23)

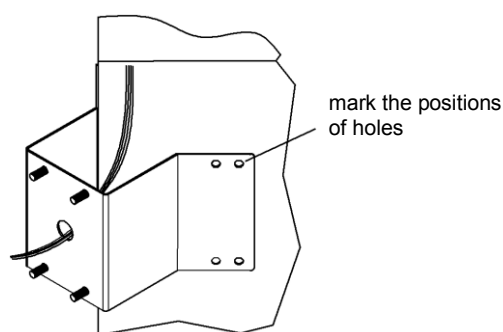


FIG. 21

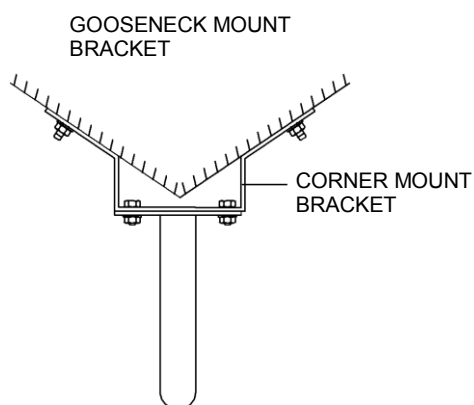


FIG. 23

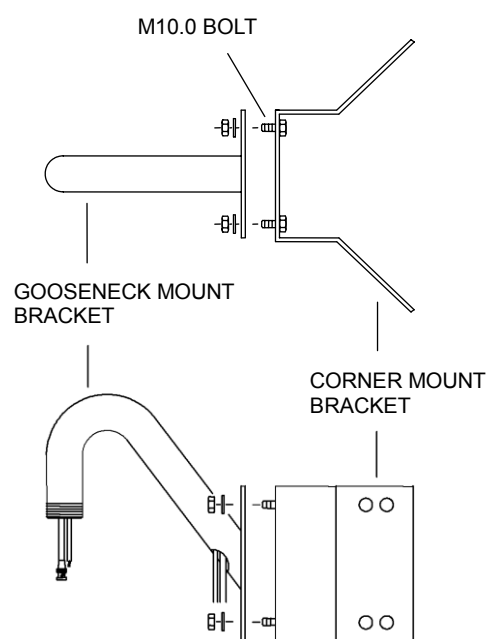


FIG. 22

INSTALLATION

6. After driving a bottom cover assembly to gooseneck mount bracket, as shown on FIG 23, assemble mini PTZ with bottom cover assembly. (FIG. 24) **Caution)** Be sure to use seal tape for pipe screw to prevent a water leakage.

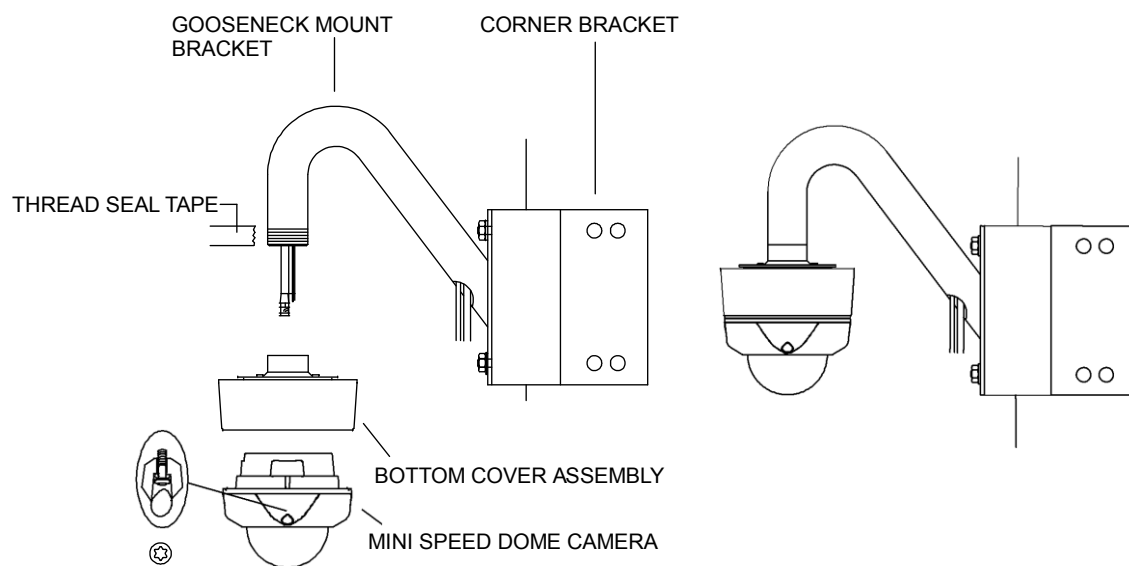


FIG. 24

INSTALLATION

H. POLE MOUNT TYPE

Contents

- Pole mount adaptor 1ea
- Band Clamp 2ea
- M10 Bolt & Nut 4ea

1. Fix the wanted bracket on the pole mount bracket with 4 ea of M10 BOLT before you install the pole mount bracket. (FIG. 25)
2. Tie the bracket with SUS BAND tightly. (FIG. 26)
3. As shown FIG. 26 after installing a wall mount bracket, fix a camera on the wall mount bracket. (FIG. 27)

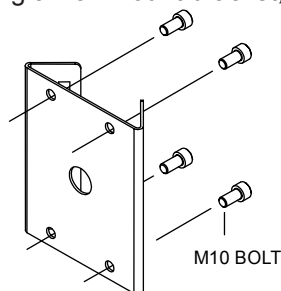


FIG. 25

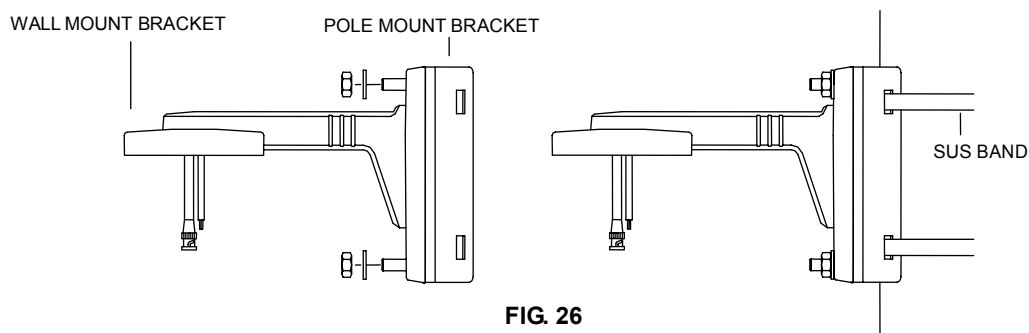


FIG. 26

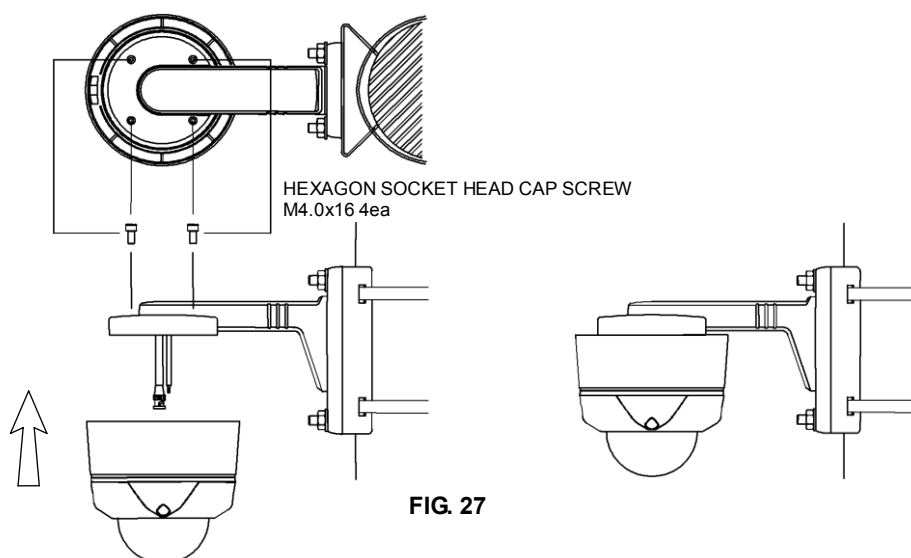


FIG. 27

QUICK OPERATING KEYS

The dome supports Pelco-D/P, SAMSUNG and VICON protocols.

The dome may be used with any controller or DVR etc that supports the Pelco D and Pelco P protocols.

The default setting of the dome is Pelco D / P with 2400 bps (baud rate).

[PELCO D/P, SAMSUNG PROTOCOLS]

The comprehensive feature set of the dome is available from Pelco compatible controllers via quick operation keys as defined below.

1-64 + preset and 100~200 + preset are used for normal user presets.

Presets 65-99 + are reserved for special functions.

For example, to enter OSD MENU, press the button **95** + **PRESET**

<Quick Operation Key Table 1, Pelco D/P, SAMSUNG>

| Number | Note | Function |
|-------------------------|---------------|---|
| 1 ~ 64, 100~200 +Preset | PRESET | Execute Preset 1 ~ 64 |
| 65 + Preset | PRESET STATUS | Display Preset Status |
| 66 +Preset | AUTO SCAN | Execute Auto Scan |
| 67 +Preset | AUTO FLIP | Selectable On/Off/Auto in Auto Flip function |
| 71~78 +Preset | GROUP TOUR | Execute Group Tour #1 ~ #8 |
| 81~88 +Preset | PATTERN | Execute Pattern #1 ~ #8 |
| 91 + Preset | ZERO POSITION | Search For Pan / Tilt Zero Position |
| 92 + Preset | FREEZE | Select Freezing of current image |
| 93 + Preset | BLC MODE | Selectable On/Off in BLC function |
| 94 + Preset | D/N MODE | Selectable Day/Night Mode (Auto/Day/Night Mode) |
| 95 + Preset | OSD MAIN MENU | To enter OSD Main Menu |
| 96 + Preset | FOCUS ADJUST | Focus adjustment |
| 97 +Preset | ALARM | Selectable Enable/Disable all Alarms |

| Menu | Function |
|------------------|--|
| Tilt Up / Down | Sub menu cursor moves up / down |
| Pan Left / Right | Enter to the sub menu or status change or decrement |
| Focus Near | Using for Enter key when user select YES or NO |
| Focus Far | Using for function changing keys when set coordinate |
| Zoom Tele | Status cursor to the right |
| Zoom Wide | Status cursor to the left |

- **65 + preset**: "Preset Status" is displayed, to remove this screen, press **Focus Near** button.
- **92 + preset**: This feature freezes the current live image during tour, auto scan or pattern operation. When you press 92 + **preset button**, the image freezes but the camera is still working as per operation such as tour, pattern or auto scan. To return to normal images, press 92 + **preset button again**.
This feature is operated by preset number but not included in OSD main menu.

- If a controller asks for an unsupported feature "Not available" is displayed on the monitor.

QUICK OPERATING KEYS

[VICON PROTOCOL]

If user wants to choose Vicon Protocol, the user may change the dip switch first.

(Refer to Page #36 DIP SWITCH SETTING - PROTOCOL) Baud Rate: 4800 (Vicon default)

The operation system is almost same as Pelco D/P protocols but some special features are different way as noted below'

<Quick Operation Key Table 2: VICON>

| Number | Note | Function |
|------------------|------------------|---|
| 1 ~ 79 +Preset | PRESET | Execute Preset 1 ~ 79 |
| 80~87 +Preset | GROUP TOUR | Execute Group Tour #1 ~ #8 |
| 88~89 +Preset | PATTERN | Execute Pattern #1 ~ #2 |
| 90 + Preset | Focus Mode Set | Focus Mode Toggle to Auto or Manual |
| 90 + Preset Save | Pan/Tilt Lockout | PAN/TILT Lock or Unlock setting |
| 91 + Preset Save | ZERO POSITION | Search For Pan / Tilt Zero Position |
| 92 + Preset Save | ALARM | Selectable Enable/Disable all Alarms |
| 93 + Preset Save | BLC MODE | Selectable On/Off in BLC function |
| 94 + Preset Save | OSD MAIN MENU | To enter OSD Main Menu |
| 95 + Preset Save | D/N MODE | Selectable Day/Night Mode (Auto/Day/Night Mode) |
| 96 + Preset Save | SECTOR | SECTOR setting menu entrance |
| 97 + Preset Save | DOME Reset | Initial DOME Reset - Rebooting |
| 98 + Preset Save | AUTO PAN | AUTO PAN setting menu entrance |
| 99 + Preset Save | Pan/Tilt Speed | Manual Pan/Tilt Max Speed setting |

| Menu | Function |
|------------------|--|
| Tilt Up / Down | Sub menu cursor moves up / down |
| Pan Left / Right | Enter to the sub menu or status change or decrement |
| A/P | Using for Enter key when user select YES or NO |
| A/I | Using for function changing keys when set coordinate |
| Zoom Tele | Status cursor to the right |
| Zoom Wide | Status cursor to the left |

DIAGNOSTIC

Whenever the dome is powered on, a standard diagnostic is operated.

The following messages are displayed on the monitor.

CAMERA ID : 001

BAUD RATE : 2400 BPS

WAITING.....

PAN ORIGIN TEST OK

TILT ORIGIN TEST OK

TX CONNECTION TEST OK

CAMERA COMM TEST OK

A. Pan Origin Test

Zero point of Pan is located during the Panning test.

B. Tilt Origin Test

Zero point of Tilt is located during the Tilt test.

C. TX connection Test

The TX connection test looks for commands from a controller to the dome. If no commands are detected the test will exit after 60 seconds.

During the 60 seconds, the camera must receive a signal from the controller or DVR, so please operate the controller during this phase. As soon as the dome detects a command "OK" will be displayed and the test will move on to the next step.

If the Tx connection test fails check the RS 485 wiring.

D. Camera Comm. Test

Camera communication is also checked.

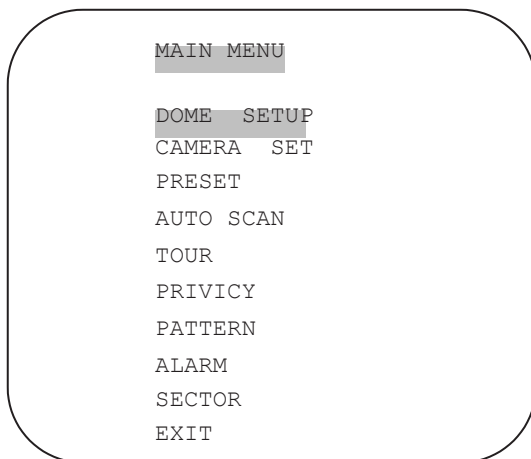
OK should be displayed in these four tests before installation.

If all the above Tests are OK, **"NOW EEPROM CHECKING"** and **"ALL DATA INITIALIZING"** is displayed and the camera is ready to operate.

[illegible]

OSD MENU SETTING

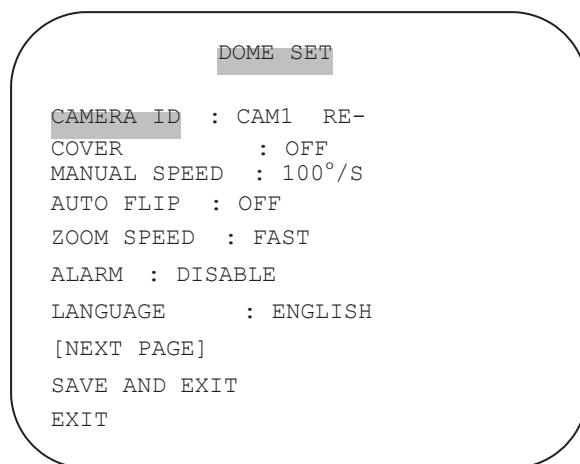
To enter OSD Menu, press the button **[95]** + **PRESET**.



* Use “up down” to move the position and “left right” to make selection

B. Dome Setup

In order to enter Dome setup, select right direction when the cursor is on dome setup.



← **DEFAULT SETTING**

B-1. DOME SET - CAMERA ID

To set camera name, and select a title of up to 16 characters using left or right direction keys or joystick.

Press **[ZOOM TELE]** button to move to the next character from left to right direction and **[ZOOM WIDE]** button to move to the next character from right to left direction (Space displays when **[]** appears)

OSD MENU SETTING

B-2. DOME SET - RECOVER

This feature allows the dome to revert to a specific programmed action when the dome has not received a command for the recovery timer period.

Actions can be Auto scan, group tour and pattern. The recovery time can be programmed from 15 second to 90 seconds. The default setting is OFF.

B-3. DOME SET - MANUAL SPEED

The manual speed of Pan/Tilt is selectable from 100°/sec up to 150°/sec.
The default setting is 100°/sec

B-4. DOME SET - AUTO FLIP

Auto Flip enables the dome to automatically do a 180° turn when the tilt bottom point is reached. The default setting is OFF. This function can be recalled by pushing **67+ preset** button.

B-5. DOME SET - ZOOM SPEED

Zoom speeds are selectable as FAST or SLOW mode. The default setting is FAST.

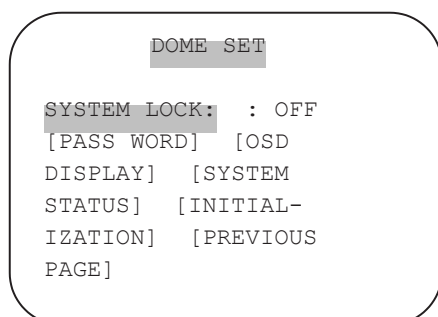
B-6. DOME SET - ALARM

You must enable the alarms for them to operate. The default setting is DISABLED.
This function can be recalled by pushing **97+ preset** button.

B-7. DOME SET - LANGUAGE

Multiple languages are selectable (English, German, Dutch, Danish, French)
The default setting is ENGLISH.

B-8. DOME SET - [NEXT PAGE]



B-8-1. DOME SET - [NEXT PAGE] - SYSTEM LOCK

All stored dome settings can be password protected to prevent unauthorized changes. In order to enter [PASS WORD] page, the system lock status must firstly be set as ON. The default setting is OFF.

OSD MENU SETTING

B-8-2. DOME SET - [NEXT PAGE] - [PASSWORD]

To enter this page to set a password, move joystick or pan key in the right direction.

The password must be set by preset number from 001 to 255 (**Default 99**)

ENTER PASSWORD
BY ENTERING PRESET CODE
PASSWORD ***
CONFIRM ***

Enter any number from 001~255 on the password blank area and again for confirmation on blank area. Then "CONFIRMED" is displayed on the monitor and the menu will go back to the previous page automatically.

ENTER PASSWORD
BY ENTERING PRESET CODE
PASSWORD ***

CONFIRM ***CONFIRMED

<CONFIRMED>

ENTER PASSWORD
BY ENTERING PRESET CODE
PASSWORD ***
CONFIRM ***NOT CORRECT

<CANCELLED>

If you press an incorrect number between PASSWORD and CONFIRM, "NOT CORRECT" is displayed on the monitor.

- * When a password has been set, the operator must enter the correct password in order to enter OSD MAIN MENU, or to change any of the domes configuration data
- * If you set a password you must ensure that it does not get lost. If this happens the dome must be returned for workshop repair

B-8-3. DOME SET - [NEXT PAGE] - [OSD DISPLAY]

The camera ID setting defines whether the camera OSD display is displayed or switched off.

OSD DISPLAY

CAMERA ID : OFF
PRESET ID : OFF
SECTOR ID : OFF
COORDINATE : ON [PRE-
VIOUS PAGE]

← **DEFAULT SETTING**

OSD MENU SETTING

B-8-4. DOME SET - [NEXT PAGE] - [SYSTEM STATUS]

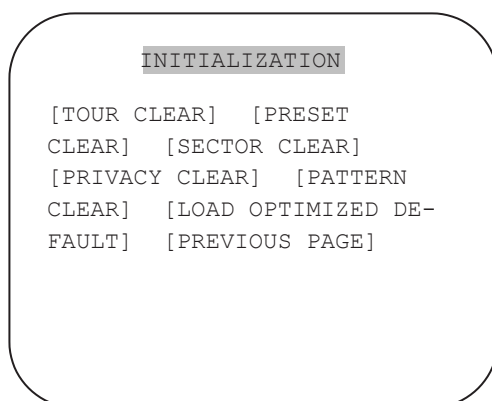
This page shows the information of this camera.



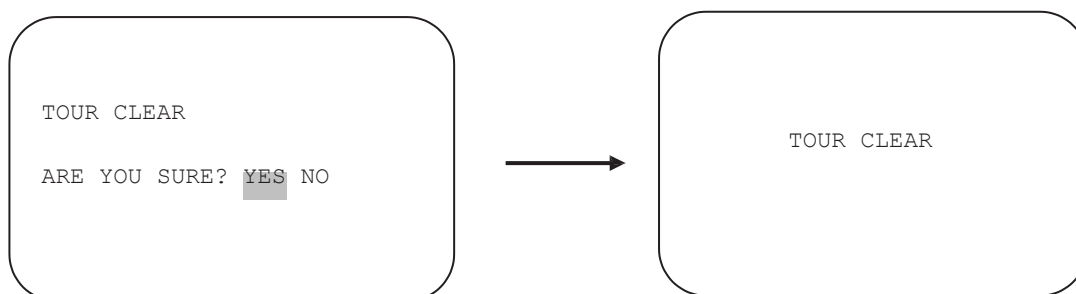
- Protocol and baud rate are shown according to the dip switch setting (Refer to page 36, 37)
- Firmware version and upgraded date will be changed if the dome has been upgraded.
- The camera module type is stated as follows.
 - SDM100 : SAMSUNG 10X ZOOM CAMERA MODULE.

B-8-5. DOME SET - [NEXT PAGE] - [INITIALIZATION]

To clear the current settings select the item that you wish to reset back to factory defaults.



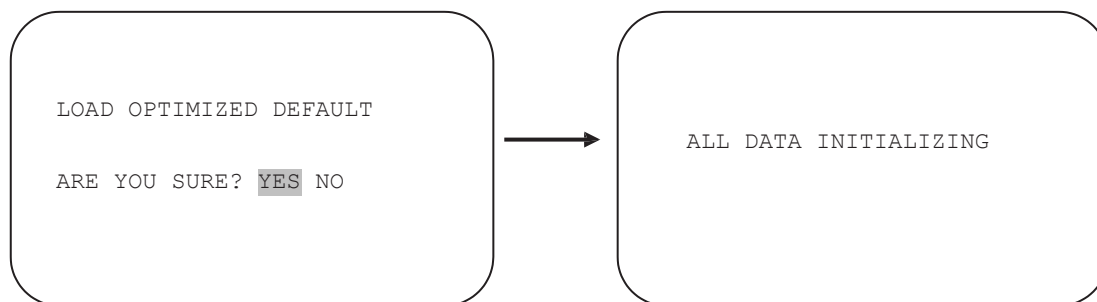
- To clear the memorized data, move the joystick or pan right key until the cursor is on the required item.



OSD MENU SETTING

Press **FOCUS NEAR** button when the cursor is at YES in order to clear memorized data. Then each item such as tour, preset, and sector will flicker for about 2~3 seconds. After this process, the menu is returned to the previous page.

* Use the above method for [PRESET CLEAR], [SECTOR CLEAR], [PRIVACY CLEAR], [PATTERN CLEAR], [TOUR CLEAR].



- To clear all data and return to factory defaults, move the joystick right or press the pan right key to when the cursor is at [LOAD OPTIMIZED DEFAULT] to enter the next page.
- Move joystick or the pan right keys so that the cursor is over YES, then press the **FOCUS NEAR** button.

“ALL DATA INITIALIZING” is then displayed for about 5~7 seconds and then the menu is returned to the previous page automatically.

B-9. DOME SET - [NEXT PAGE] - SAVE AND EXIT

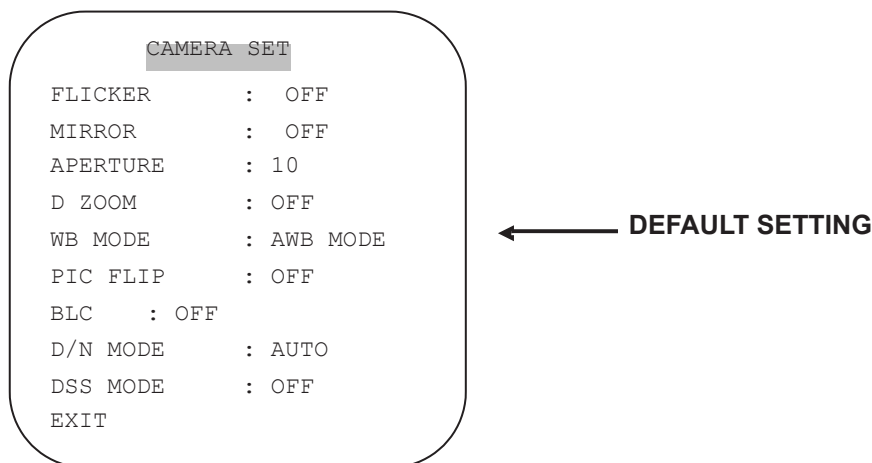
To save the memorized data and escape this page, move the joystick right or press the pan right key when cursor is at SAVE AND EXIT.

B-10. DOME SET - [NEXT PAGE] - EXIT

In order to escape this page, move the joystick right or press the pan right key when the cursor is at EXIT

OSD MENU SETTING

C. CAMERA SET



C-1. CAMERA SET - FLICKERLESS

The flicker less feature has options of 50Hz and 60Hz.

The default setting is OFF (NTSC: 60Hz / PAL: 50Hz). The flicker less mode only needs to be set when there is a mismatch between the power frequency and camera sync rate.

The default setting is OFF.

C-2. CAMERA SET - MIRROR

This feature literally swaps the image left and right as if looking into a mirror.

The default setting is OFF.

C-3. CAMERA SET - APERTURE

Aperture correction enhances the picture details and sharpness by increasing the gain of the camera. Increase the value to sharpen the image, decrease to soften it. The default setting is 10. (the aperture level is from 01 ~ 15)

C-4. CAMERA SET - D ZOOM

If enabled digital zoom is applied when the zoom lens has reached its maximum optical zoom in capability. The default setting is OFF.

C-5. CAMERA SET - WB MODE

White balance functions has 4 modes and may need to be changed depending on the situation.

- AWB Mode – 3,200K to 6,000K (Default)
- Indoor – up to 3,200K
- Outdoor – up to 5,800K
- ATW Mode - 2,000K to 10,000K

OSD MENU SETTING

C-6. CAMERA SET - PIC FLIP

The picture flip feature swps the top and bottom of the image, literally inverting it.

The default setting is OFF.

C-7. CAMERA SET - BLC (Back Light Compensation)

The default setting is OFF and BLC modes can be OFF/ON.

- OFF – Backlight compensation is not activated.
- ON – Back light compensation is activated.

This function can be recalled by pushing **93 + preset** button.

C-8. CAMERA SET - D/N MODE

The dome camera can operate in day /night mode and will switch depending on lighting conditions. Alternatively it can be forced into color only mode.

The default setting is AUTO MODE.

This function can be recalled by pushing 94 + preset button.

C-9. CAMERA SET - DSS MODE (DIGITAL SLOW SHUTTER)

If digital slow shutter is enabled the exposure time of the camera is increased, this allowing more light to be collected and improving low light response. This setting should not be enabled if the dome is touring at night or fast moving objects are likely to be in the scene as smearing is also increased.

The default setting is OFF.

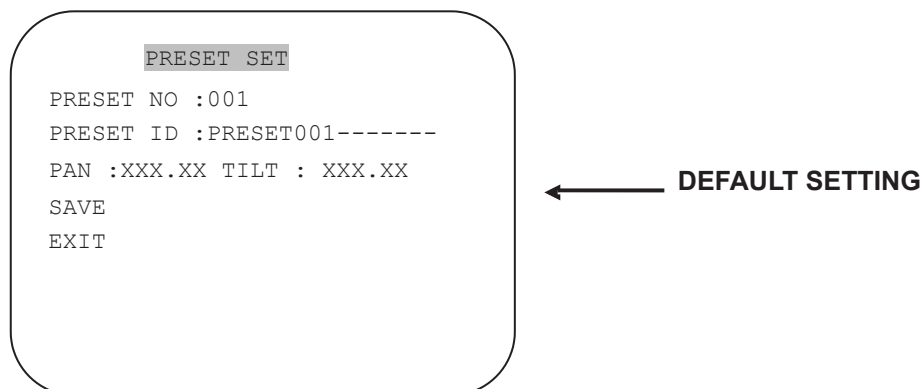
C-10. CAMERA SET - EXIT

To escape this page, move the joystick right or press the pan right key.

OSD MENU SETTING

D. PRESET SET

To enter PRESET SET, move joystick to the right direction.



D-1. PRESET - PRESET NO.

Up to 165 preset positions are available. Use the joystick or pan left/right keys to select the number.

D-2. PRESET - PRESET ID

To create preset titles use the joystick or pan left/right keys to navigate the menu.

The **ZOOM TELE** button moves to the next character from left to right and **ZOOM WIDE** button moves to the next character from right to left (Space displays when **●** appears)

D-3. PRESET - PAN: XXX.X TILT: XX.X

Press **FOCUS FAR** button in order to set preset position then, use the joystick or pan left/right keys to the position where memorized preset number .is needed. Then press **FOCUS FAR** button again after setting a preset location.

D-4. PRESET - SAVE

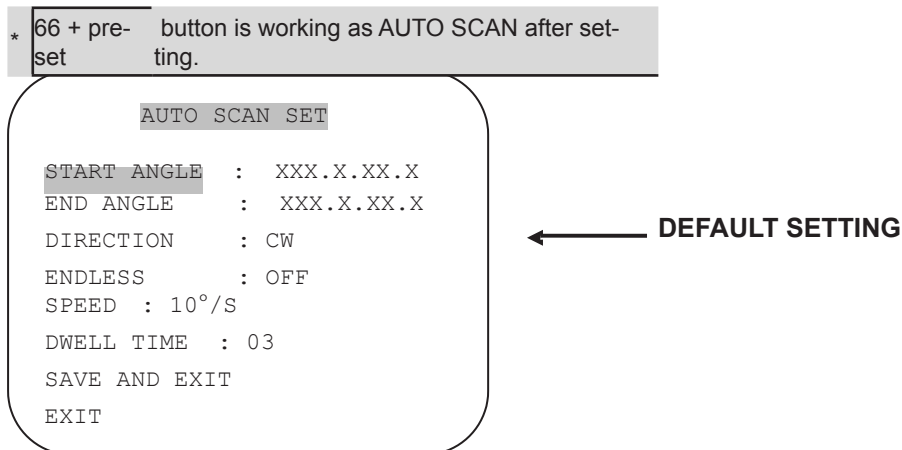
Move the joystick right or press the pan right key when the cursor is at SAVE and then the cursor will be located on Preset ID for the continuous preset No. setting.

D-5. PRESET - EXIT

To escape this page, move the joystick right or press the pan right button.

OSD MENU SETTING

E. AUTO SCAN SET



E-1. AUTO SCAN - START ANGLE

To set the start position, press **FOCUS FAR** button then move the dome to the required start position. Press **FOCUS FAR** button again is to escape.

E-2. AUTO SCAN - END ANGLE

To set the end position, press **FOCUS FAR** button then move the dome to the required end position. Press **FOCUS FAR** button again is to escape.

E-3. AUTO SCAN - DIRECTION

Auto Scan directions are available as CW or CCW.

- CW: Clock wise direction (Default)
- CCW: Count Clock Wise Direction.

E-4. AUTO SCAN - ENDLESS

Auto Scan can be set to endless rotation by enabling the endless option.

The default setting is OFF.

E-5. AUTO SCAN - SPEED

Auto scan speed can be programmed from 05°/S up to 35°/S.
The

default setting is 10°/S.

E-6. AUTO SCAN - DWELL TIME

The dwell time at the start and end points can be programmed from 1 second to 30 seconds.
The default setting is 03 seconds.

E-7. AUTO SCAN - SAVE AND EXIT

To save the memorized data and escape this page, move the joystick right or press the pan right key when the cursor is at SAVE AND EXIT.

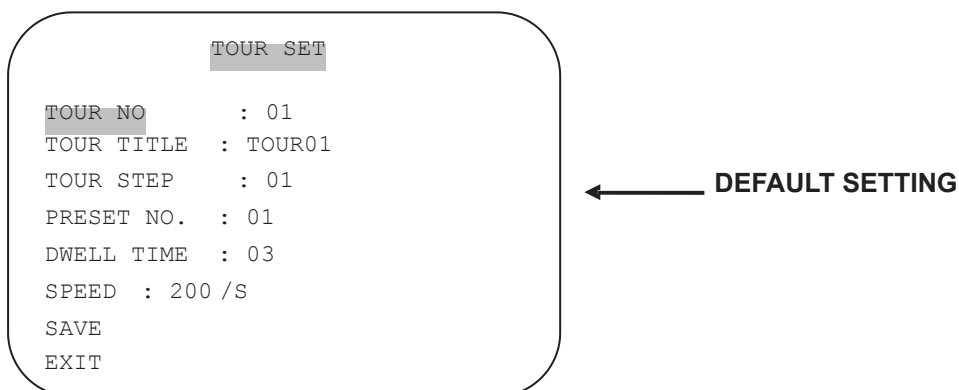
E-8. AUTO SCAN - EXIT

To escape this page, move the joystick right or press the pan right key.

OSD MENU SETTING

F. TOUR SET

8 Programmable tours can be set and each tour can have up to 64 preset steps.
After setting up the tours the **71~78 + preset** buttons launch group tours # 1~8



F-1. TOUR SET - TOUR NO.

Up to 8 group tours can be programmed.

F-2. TOUR SET - TOUR TITLE

To set a tour title, use the joystick left/right or pan left/right keys.

Each title can have up to 16 characters.

Press **ZOOM TELE** button to move the next character from left to the right and **ZOOM WIDE** button to move the next character from right to left (Space displays when appears) The tour title is not displayed on the monitor and is only for the reference of user.

F-3. TOUR SET - TOUR STEP

Each tour group consists of up to 60 preset steps with different dwell time and speed.

It is possible to match any preset # for any tour step.

F-4. TOUR SET - PRESET NO.

For each tour step it is possible to select any preset number up to 64.

The default setting is **BLK**

F-5. TOUR SET - DWELL TIME

Dwell time can be programmed from 1-99 seconds. The default setting is **03 seconds**.

F-6. TOUR SET - SPEED

Each tour step can be set with a different speed up to 2000/S and it is selectable from 100/S.

The default setting is **2000/S**.

F-7. TOUR SET - SAVE

To save the memorized data and escape this page, move the joystick right or press the pan right key when cursor is at SAVE

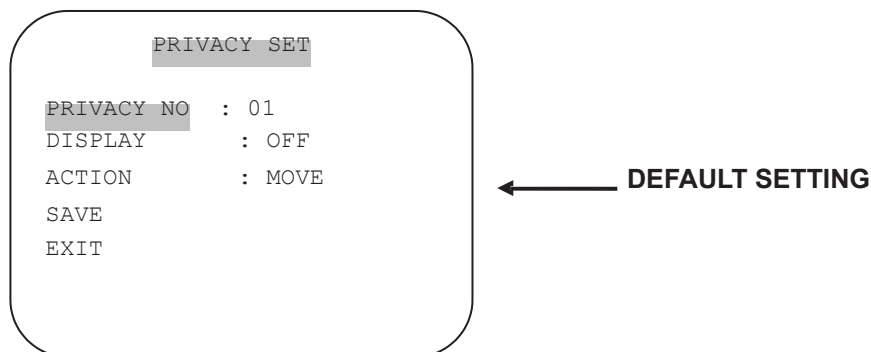
F-8. TOUR SET - EXIT

To escape this page, move the joystick right or press the pan right key.

OSD MENU SETTING

G. PRIVACY SET

4 Privacy masking zones can be set.



G-1. PRIVACY SET - PRIVACY NO.

Up to 4 privacy masking zones can be set.

G-2. PRIVACY SET - DISPLAY.

Move the joystick right or left or press pan right/left to set ON in order to show the selectable block in the center of the monitor. This block appears as a translucent square with blue color when set ON. The default setting is OFF.

G-3. PRIVACY SET - ACTION (MOVE / ADJUST)

To set the blocking area, press **FOCUS FAR** button when MOVE MODE is displayed. Then use the joystick or pan keys to the user defined area in order to set the blocking area. Then press **FOCUS FAR** button again to escape from MOVE MODE. To adjust the size of the blocking area, move the joystick or use the pan keys when the cursor is on ACTION. After it has changed to ADJUST MODE, press **FOCUS FAR** button in order to adjust the size of the blocking area. The size of the blocking area can be adjusted by using joystick up/down or left right – or the pan and tilt keys. After adjusting the size of the blocking area, press **FOCUS FAR** button to escape the ADJUST mode.

- ADJUST : You can change the masking size by using the joystick or pan keys
- MOVE : You can move the masking area by using the joystick or pan keys (Default)

G-4. PRIVACY SET - SAVE

After setting the privacy masking zone, to save the data, move the joystick right or pan right key when the cursor is on SAVE. After saving the data, the cursor moves to PRIVACY NO.2 automatically to prepare for the next privacy masking zone.

G-5. PRIVACY SET - EXIT

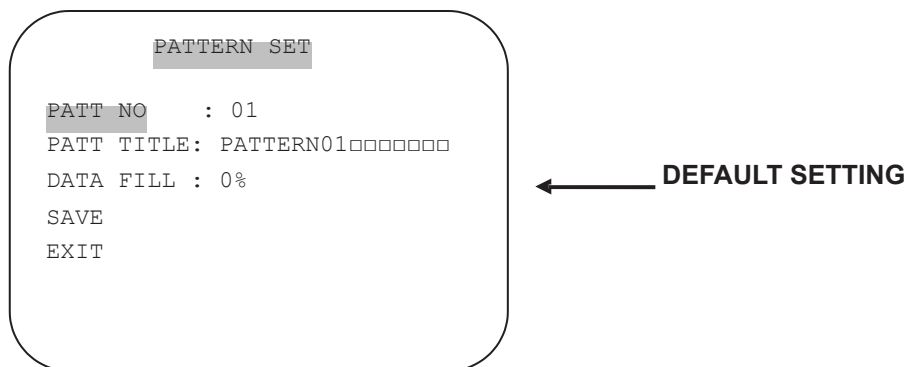
To escape this page, move the joystick right.

OSD MENU SETTING

H. PATTERN SET

8 programmable patterns are available, each with a programmable title.

After setting up each pattern # 1~8, 81~88+ preset buttons will recall Patterns # 1~8.



H-1. PATTERN SET - PATT NO.

Up to 8 programmable user-defined patterns are available.

H-2. PATTERN SET - PATT TITLE

To set PATTERN TITLE move Joystick left/right or use the pan keys.

Press **ZOOM TELE** button moves to the next character from the left / right and **ZOOM WIDE** button moves to the next character from the right / left (Space displays when **□** appears) The pattern title is not displayed on the monitor, but only for the reference of the user.

H-3. PATTERN SET - DATA FILL

To memorize a pattern, press **FOCUS FAR** button in order to start the process.

The progress is shown as % filled. Press **FOCUS FAR** button again in order to escape.

H-4. PATTERN SET - SAVE

To save the memorized pattern data, move the joystick right or press the pan right key when the cursor is on SAVE. Then the cursor moves to the PATT NO.02 in order to prepare for the next pattern.

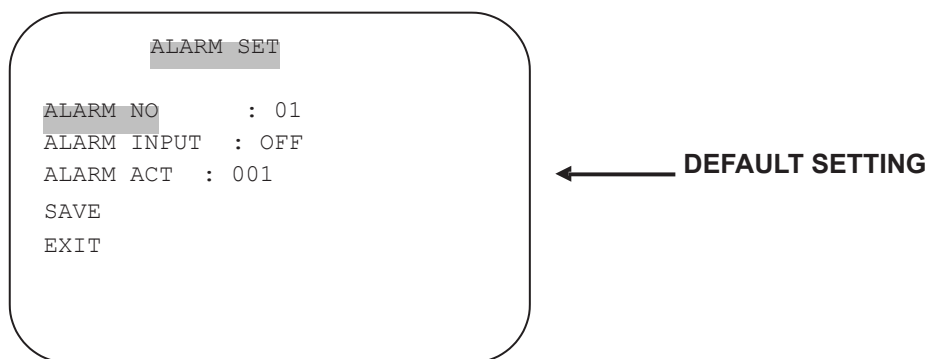
H-5. PATTERN SET - EXIT

To escape this page, move the joystick right or press the pan right key.

OSD MENU SETTING

I. ALARM SET

4 Alarm inputs are available and each input can activate presets, group tours or patterns.



I-1. ALARM SET - ALARM NO.

Up to 4 alarms are selectable by using joystick right or pressing the pan right key when the cursor is on ALARM NO.

I-2. ALARM SET - ALARM INPUT

Alarm inputs can be programmed as NC (Normally Close) or NO (Normally Open)
The default setting is OFF.

I-3. ALARM SET - ALARM ACT

Active alarms can trigger modes such as presets, Group tours 1-8, and Patterns 1-8.
Use the joystick or pan keys to select any preset number, group tour no. or pattern no.

I-4. ALARM SET - SAVE

After setting up the alarm features, to save the data move the joystick right or press the pan right key when the cursor is on SAVE. After saving the data, the cursor moves to Alarm NO.2 automatically to prepare for the next alarm.

I-5. ALARM SET - EXIT

To escape this page, move the joystick right or press the pan right key.

* Before activating Alarms, you must set ALARM ENABLE at DOME SET – ALARM – ENABLE

(Refer to page 23)

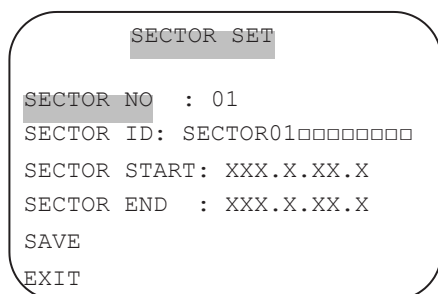
OSD MENU SETTING

J. SECTOR SET

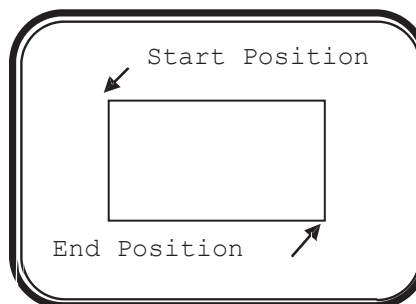
Up to 8 programmable sectors are available, each with a 16 character title.

This feature allows the various areas of the domes 360° rotation to be given logical titles.

When the dome is moved the relevant title for each area is displayed as the dome passes through the area.



DEFAULT SETTING



J-1. SECTOR SET - SECTOR NO.

Up to 8 programmable sectors are available.

J-2. SECTOR SET - SECTOR ID

To set a SECTOR ID, use the joystick or pan left/right keys.

Press **ZOOM TELE** button to move to the next character from left to right and **ZOOM WIDE** button to move to the next character from right to left (Space displays when **□** appears)

J-3. SECTOR SET - SECTOR START

To set a SECTOR START position, press **FOCUS FAR** button then move the joystick or pan keys to set the position. Press **FOCUS FAR** button again to escape.

J-4. SECTOR SET - SECTOR END

To set a SECTOR END position, press **FOCUS FAR** button then move the joystick or pan keys to set the position. To press **FOCUS FAR** button again to escape.

J-5. SECTOR SET - SAVE

After setting the SECTOR positions, to save the data move the joystick right or press the pan right key when the cursor is on SAVE. After saving the data, the cursor moves to SECTOR NO.2 automatically to prepare for the next SECTOR.

J-6. SECTOR SET - EXIT

To escape this page, move the joystick right or press the pan right key.

K. EXIT

To escape OSD Main Menu, move joystick to the right or left direction then this camera is Ready to operate.

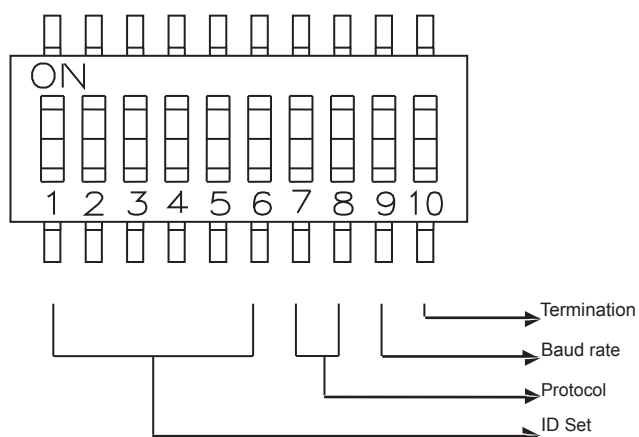
DIP SWITCH SETTING

A. FACTORY DEFAULT SETTING

The dome cameras RS 485 address is set using switches 1-6 of DIP SW1, refer to the table below...

Open the camera case to set ID using DIP SW1.

* Factory default: Camera ID = 1, PELCO-D Baud Rate: 2400bps



B. ID SETTING (1-ON, 0-OFF) (1→10)

| DIP SW | ID VALUE | DIP SW | ID VALUE | DIP SW | ID VALUE |
|------------|----------|------------|----------|------------|----------|
| 100000XXXX | 1 | 111010XXXX | 23 | 101101XXXX | 45 |
| 010000XXXX | 2 | 000110XXXX | 24 | 011101XXXX | 46 |
| 110000XXXX | 3 | 100110XXXX | 25 | 111101XXXX | 47 |
| 001000XXXX | 4 | 010110XXXX | 26 | 100011XXXX | 48 |
| 101000XXXX | 5 | 110110XXXX | 27 | 100011XXXX | 49 |
| 011000XXXX | 6 | 001110XXXX | 28 | 010011XXXX | 50 |
| 111000XXXX | 7 | 101110XXXX | 29 | 110011XXXX | 51 |
| 000100XXXX | 8 | 011110XXXX | 30 | 001011XXXX | 52 |
| 100100XXXX | 9 | 111110XXXX | 31 | 101011XXXX | 53 |
| 010100XXXX | 10 | 000001XXXX | 32 | 011011XXXX | 54 |
| 110100XXXX | 11 | 100001XXXX | 33 | 111011XXXX | 55 |
| 001100XXXX | 12 | 010001XXXX | 34 | 000111XXXX | 56 |
| 101100XXXX | 13 | 110001XXXX | 35 | 100111XXXX | 57 |
| 011100XXXX | 14 | 001001XXXX | 36 | 010111XXXX | 58 |
| 111100XXXX | 15 | 101001XXXX | 37 | 110111XXXX | 59 |
| 000010XXXX | 16 | 011001XXXX | 38 | 001111XXXX | 60 |
| 100010XXXX | 17 | 111001XXXX | 39 | 101111XXXX | 61 |
| 010010XXXX | 18 | 000101XXXX | 40 | 011111XXXX | 62 |
| 110010XXXX | 19 | 100101XXXX | 41 | 111111XXXX | 63 |
| 001010XXXX | 20 | 010101XXXX | 42 | | |
| 101010XXXX | 21 | 110101XXXX | 43 | | |
| 011010XXXX | 22 | 001101XXXX | 44 | | |

DIP SWITCH SETTING

C. PROTOCOL SETTING

7th~8th dip switches are used for Protocol Setting.

Factory Default: Pelco-D or Pelco-P (Auto detection)

| DIP SW1- 7 | DIP SW1- 8 | |
|------------|------------|--------------------|
| OFF | OFF | Pelco-D or Pelco-P |
| ON | OFF | VICON |
| OFF | ON | SAMSUNG |
| ON | ON | |

D. BAUD RATE SETTING

The 9th Dip Switch is used for BAUD RATE setting.

DIP SW can be changeable to 2400bps, 9600bps.

Factory Default: 2400bps. (If user selects Vicon protocol, then Baud rate is automatically set as 4800bps.

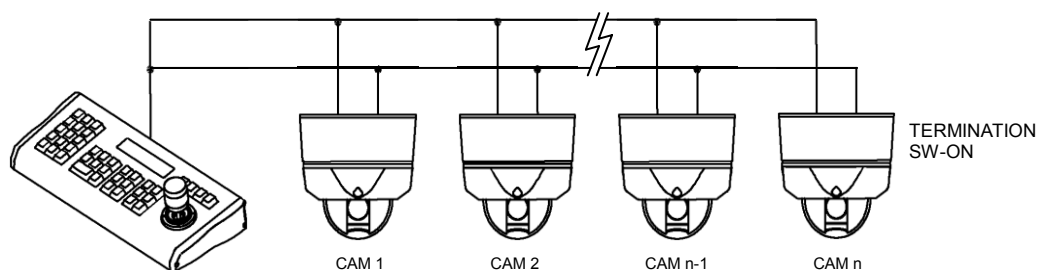
| DIP SW1 9 th | BAUD RATE |
|-------------------------|------------------------------------|
| OFF | 2400bps(Default) 4800bps(VICON) |
| ON | 9600bps |

E. 485 TERMINATIONS

10th Dip Switch is used for 100Ω termination.

Set on 10th Dip Switch only for the last looped camera from the controller.

Even in case of only one camera, set on 10th Dip Switch of the camera.



TROUBLE SHOTING

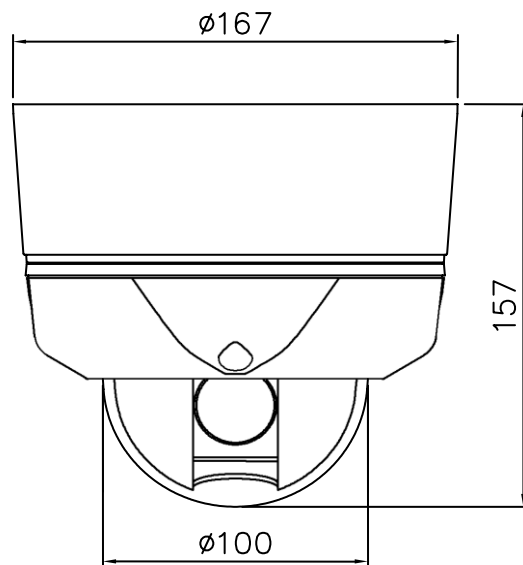
If you have trouble setting up or operating the camera, refer to the following.

| PROBLEM | SOLUTION |
|---------------------------|---|
| No operation | Check if the power supply is DC12V. Check if RS-485 communication cable is connected correctly. Check camera ID setting. Check the RS 485 termination. |
| No picture | Check if all the cables are connected correctly. Check if the monitor is adjusted correctly. Check for video locally at the dome. |
| Dark screen | Check video termination and monitor settings |
| Abnormal camera operation | Check if PSU voltage level at the dome Check the RS 485 termination. |

SPECIFICATIONS

| MODEL | | 12X Mini Speed Dome Camera |
|---------------|----------------------------|--|
| PAN /TILT | Pan Rotation Angle | 360 Endless |
| | Pan Speed | |
| | Manual Preset | Max 150 /sec Max 200 /sec |
| | Tilt Rotation Angle | 0 ~ 90 |
| | Tilt Speed | |
| FUNCTIONS | Manual Preset | Max 150 /sec Max 150 /sec |
| | Presets | 165 positions with a 16-character label available for each |
| | Privacy Masking Zones | 4 Programmable privacy masking zones |
| | Pattern | 8 Programmable pattern tour |
| | Sector | 8 Programmable sectors |
| | Group Scanning | Max.8 Programmable group tours (each one consisting of up to 60 preset steps with different steps) |
| | Auto scan | Programmable Auto scan |
| | Password Protection | Yes |
| | Alarm Input | 4 alarms OFF/NC/NO (with various programmable states) |
| | Alarm Actions | Activate preset, tour and patterns |
| | Auto Flip | ON / OFF |
| | OSD Menu | Multiple Languages on screen |
| | Communication | RS-485 |
| | Protocol | Pelco D/P, VICON, SAMSUNG |
| POWER | Power Consumption | |
| | 12V DC | 750mA, 10W MAX (1.3A, 16W MAX with Heater) |
| | Power Supply | 12V DC 750mA (1.3A with Heater) |
| OTHERS | Construction | Anti-vandal bubble (Poly carbonate), Body (Aluminum) |
| | Motor Type | Stepper Motor |
| | Operating Temperature | -10 C ~ 50 C (-40 C ~60 C with heater) |
| | Certifications | IP66,CE,FCC |
| | Image Sensor | 1/4" Sony Super HAD CCD |
| CAMERA MODULE | Total Image Pixels | |
| | NTSC PAL | 811(H) * 508(V) 410K 795(H) * 596(V) 470K |
| | Number Of Effective Pixels | |
| | NTSC PAL | 768(H) * 494(V) 380K 752(H) * 582(V) 440K |
| | Horizontal resolution | 560 TV Lines/ B/W 660 TV Lines |
| | Lens | |
| | Optical | 12x Optical Zoom f=3.94 ~ 46.05mm (F1.67~1.88) |
| | Digital | 12x (192x with optical) |
| | Day & Night (ICR) | Auto/ Day/ Night |
| | Digital Slow Shutter | ON / OFF |
| | Min. illumination | |
| | Normal mode | 0.2Lux / F1.6 (Color: 50IRE) 0.04Lux / F1.6 (B/W : IRC ON) |
| | Night mode | |
| | Luminance S/N Ratio | More than 502B |
| | Video Output | Composite video output 75Ω Terminated |
| | BLC | ON / OFF |
| | Flicker less | |
| | NTSC PAL | ON / OFF (1/100) ON / OFF (1/120) |
| | WHITE BALANCE | ATW/AWC/INDOOR/OUTDOOR |

DIMENSIONS



UNITS : mm